



## **FEMA & MAINE OFFICE OF GIS COOPERATING TECHNICAL PARTNERS MAPPING ACTIVITY STATEMENT**

### **Mapping Activity Statement No. EMB-2004-CA-0824 – Digital Flood Insurance Rate Map Production and Development of Updated Flood Data**

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated August 25, 2004 between the State of Maine Office of GIS and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. EMB-2004-CA-0824 is as follows.

#### **SECTION 1—OBJECTIVE AND SCOPE**

The objective of the Flood Map Project documented in this MAS is to develop a Digital Flood Insurance Rate Map (DFIRM) for towns within Cumberland County. Since this is Maine's first year as a CTP and the base map Maine has chosen to use is of much higher resolution than traditionally used, there is some uncertainty regarding the cost per panel. Therefore, the scope of this contract has been separated into two phases. The first phase or "pilot project" will include 19 panels covering 5 towns which have been chosen because: 1 - they are not coastal, 2 - there is no current remapping activity going on, 3 - they have completed and are maintaining their E911 roads in GIS and 4 - they have been awarded grants from the Maine Library of Geographic Information to digitize and provide property maps to the Library. Phase 1 includes Casco, Gray, New Gloucester, North Yarmouth and Harrison.

Phase 2 will be the allocation of resources remaining after the phase 1 pilot project is complete. Based on cost estimates from other CTPs we anticipate completing an additional 150 panels in Cumberland County in Phase 2. Phase 2 will include the selection of additional communities based on: 1 - the level of effort required in phase 1, 2 - remapping efforts, 3 - resolution of issues with coastal communities, 4 - towns selected for the second round of grants to communities for digitizing property maps and 5 - the town's status in E911 road maintenance. The DFIRMs will be produced in the FEMA countywide format although only portions of the county will be completed during each phase.

This Flood Map Project will be completed by the following

- Maine Office of GIS (MeGIS)

The activities for this Flood Map Project, including required Quality Assurance/Quality Control (QA/QC) reviews, and the Mapping Partners that will complete them are summarized in the table below. The sections of this MAS that follow the table below describe the specific activities, responsible Mapping Partner(s), FEMA standards that must be met, and resultant map components.

<b>Activities</b>	<b>CTP</b>
Activity 10 – Base Map Acquisition	MeGIS
Activity 11 – DFIRM Production (Non-Revised Areas)	MeGIS

## **Activity 10 - Base Map Acquisition**

Responsible Mapping Partner: Maine Office of GIS

Scope: Activity 10 consists of obtaining the digital base map for the project. The base map will consist of the 2001 6" color orthoimagery covering Cumberland County. The Maine Office of GIS shall provide the digital base map. The required activities are as follows:

- Obtain digital files of the base map.
- Certify that the digital data meets the minimum standards and specifications that FEMA requires for DFIRM production.
- Populate the DFIRM database with the information required by FEMA.

Standards: All work under Activity 10 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Maine Office of GIS shall make the following products available to FEMA:

- Written certification that the digital data meet the minimum standards and specifications and
- Documentation that FEMA can use the digital base map.

Appendix M may be downloaded from the FEMA Flood Hazard Mapping Web site at [http://www.fema.gov/pdf/fhm/frm\\_gsam.pdf](http://www.fema.gov/pdf/fhm/frm_gsam.pdf).

## **Activity 11 – DFIRM Production (Non-Revised Areas)**

Responsible Mapping Partner: Maine Office of GIS

Scope: Maine Office of GIS shall convert the information shown on the effective FIRM and Flood Boundary Floodway Map (FBFM) panels of Cumberland County to digital format in conformance with FEMA DFIRM specifications. Maine Office of GIS shall use the base map acquired under Activity 10 for the conversion. The scope of Activity 11 covers the digitization of 169 FIRM panels and associated FBFM panels. Maine Office of GIS also shall incorporate the results of LOMCs issued by FEMA since the date of the current effective FIRM for each affected community.

Standards: All work under Activity 11 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Maine Office of GIS shall make the following products available to FEMA:

- Digital work maps showing the 1- and 0.2-percent-annual-chance floodplain boundary delineations, regulatory floodway boundary delineations, cross sections, BFEs, flood insurance risk zone labels, and all applicable base map features;
- DFIRM mapping files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- Metadata files describing the DFIRM data, including all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- Complete set of plots of DFIRM panels showing all detailed flood hazard information at a suitable scale; and
- A Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the DFIRM, including a check that the road and floodplain relationship is maintained for all non-revised areas.

Appendix M may be downloaded from the FEMA Flood Hazard Mapping Web site at [http://www.fema.gov/pdf/fhm/firm\\_gsam.pdf](http://www.fema.gov/pdf/fhm/firm_gsam.pdf).

## **SECTION 2—TECHNICAL AND ADMINISTRATIVE SUPPORT DATA SUBMITTAL**

The Project Team members for this Flood Map Project that have responsibilities for activities included in this MAS shall comply with the data submittal requirements summarized below.

All supporting documentation for the activities in this Mapping Activity Statement shall be submitted in the TSDN format in accordance with Appendix M of the FEMA *Guidelines and Specifications for Flood Hazard Mapping Partners*, dated February 2002. Appendix M is available for viewing or download on the FEMA Web site at [http://www.fema.gov/pdf/fhm/firm\\_gsam.pdf](http://www.fema.gov/pdf/fhm/firm_gsam.pdf). Table 2-1 indicates the sections of the TSDN that apply to each mapping activity.

If any issues arise that could affect the completion of an activity within the proposed scope or budget, the responsible Mapping Partner shall complete a Special Problem Report (SPR) as soon as possible after the issue is identified and submitted to FEMA. The SPR is to describe the issue and propose possible resolutions. (For additional information on SPRs, refer to Appendix M, Subsection M.2.1.1 of *Guidelines and Specifications for Flood Hazard Mapping Partners*.)

Additionally, the MCC shall collect and maintain a set of products for all Activities and shall compile a comprehensive TSDN for the entire project.

**Table 2-1. Mapping Activities and Applicable TSDN Sections**

TSDN Section	Mapping Activities	
	10	11, 11A
General Documentation		
Special Problem Reports	X	X
Telephone Conversation Reports	X	X
Meeting Minutes/Reports	X	X
General Correspondence	X	X
Mapping Information	X	X
Miscellaneous Reference Information	X	X

### **SECTION 3—PERIOD OF PERFORMANCE**

The mapping activities outlined in this MAS will begin on August 1, 2004 and will be completed no later than January 31, 2006. The mapping activities may be terminated at the option of FEMA or the Maine Office of GIS in accordance with the provisions of the Partnership Agreement dated August 25, 2004.

### **SECTION 4—FUNDING/COST-SHARING**

FEMA is providing funding, in the amount of [REDACTED] to the Maine Office of GIS for the completion of this Flood Map Project. The Maine Office of GIS shall provide any additional resources required to complete the assigned activities for this Flood Map Project. See FEMA Form 20-20 for additional Funding/Cost Sharing information.

### **SECTION 5—STANDARDS**

The standards relevant to this Mapping Activity Statement are provided in Tables 5-1 and 5-2. Information on the correct volume, appendix, section, or subsection of the FEMA *Guidelines and Specifications for Flood Hazard Mapping Partners* to be referenced for each mapping activity are summarized in Table 5-2.

These Guidelines are available for viewing or download from the FEMA Flood Hazard Mapping Web site at [http://www.fema.gov/fhm/dl\\_cgs.shtm](http://www.fema.gov/fhm/dl_cgs.shtm).

**Table 5-1. Applicable Standards for Project Activities**

Applicable Standards	Activities	
	10	11, 11A
<i>Guidelines and Specifications for Flood Hazard Mapping Partners</i> , February 2002	X	X
<i>Content Standards for Digital Geospatial Metadata</i> (Federal Geographic Data Committee, 1998)	X	X

**Table 5-2. Project Activities and Applicable Portions of FEMA Guidelines and Specifications**

Activity Number	Activity Description	Applicable Volume, Section/Subsection, and Appendix
10	Base Map Acquisition and Preparation	Volume 1, Section 1.3 (specifically Subsection 1.3.1.8) and 1.4 (specifically Subsection 1.4.3) ----- Appendices A and B
11	DFIRM Production (Non-Revised Areas)	Volume 1, Section 1.4 (specifically Subsections 1.4.2.3 and 1.4.3.2) ----- Appendices K, L, and M

## SECTION 6—SCHEDULE

The activities documented in this MAS shall be completed in accordance with the project schedule below. If changes to this schedule are required, the responsible Mapping Partner shall coordinate with FEMA and the other Mapping Partners in a timely manner

ACTIVITIES	RESPONSIBLE PARTNER(S)	DATE DUE
Activity 10 – Base Map Acquisition	MeGIS	12/31/04
Activity 11 – DFIRM Production (Non-Revised Areas)	MeGIS	1/31/06

## SECTION 7—CERTIFICATIONS

**The following certifications apply to this MAS:**

**Activity 10 (Base Map Acquisition and Preparation)**

- The responsible Mapping Partner will provide documentation that the digital base map can be used by FEMA.

## SECTION 8—TECHNICAL ASSISTANCE AND RESOURCES

Project Team members may obtain copies of FEMA-issued LOMCs, archived engineering backup data, and data collected as part of the Mapping Needs Assessment Process from the Dewberry, LCC, who may be contacted by telephone at 1-877-336-2627. MeGIS will be advised by FEMA of any changes to this contact information.

General technical and programmatic information, such as FEMA 265 and the Quick-2 computer program, can be downloaded from the FEMA Web site ([www.fema.gov/mit/tsd/](http://www.fema.gov/mit/tsd/)). Specific technical and programmatic support may be provided through the MCC; such assistance should be requested through the FEMA Project Officer specified in Section 11 of this MAS.

Project Team members also may consult with the FEMA Regional Project Officer to request support in the areas of selection of data sources, digital data accuracy standards, assessment of vertical data accuracy, data collection methods or subcontractors, and GIS-based engineering and modeling training.

## SECTION 9—CONTRACTORS

N/A

## SECTION 10—FINANCIAL REPORTING

Because funding has been provided to the Maine Office of GIS by FEMA, financial reporting requirements for the Maine Office of GIS will be in accordance with Cooperative Agreement Articles V and VI.

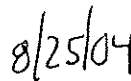
## SECTION 11—POINTS OF CONTACT

The points of contact for this Flood Map Project are Dean Savramis, the FEMA Regional Project Officer; Dan Walters, the Project Manager for the Maine Office of GIS; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, the assistance of the MCC should be requested through the FEMA Project Officer, Dean Savramis.

Each party has caused this MAS to be executed by its duly authorized representative.



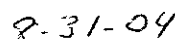
Daniel H. Walters  
Project Manager  
Maine Office of GIS



Date



Dean Savramis, HIRA Branch  
Regional Project Officer  
Federal Emergency Management Agency, Region 1



Date

Appendix A – Orthoimagery provided by the state for DFIRM production

